

[0018] In an alternate embodiment, each end of the handle 130 may be joined directly to the trouser legs at the ends of the bridge.

[0019] Each of the Various components of the assistive garment may be attached together by way of suitable techniques. For example, fabric components may be sewn or stitched together. Stitching may employ machine sewing techniques for attachment. For example, sewing may use conventional lock stitch techniques such as, for example, straight or zig-zag stitching. Additionally or alternatively, fabric pieces may be sewn, such as by way of a serger, using an overlook or “merrowing” stitch. Stitching may employ single or multiple threads. For example, a lock stitch may comprise a top thread and a bobbin thread. In another example, an overlook stitch may employ multiple threads. An overlook stitch employing more threads may be stronger and more resistant to failure than one employing fewer threads. Additionally or alternatively, other fabric joining techniques such as, for example, riveting, may be employed.

[0020] Garments made primarily from sewn fabric or from fabric and other softer materials may be more comfortable when worn such as, for example, during sleep than a garment with harder surfaces.

[0021] As illustrated, primary handle 140 and secondary handle 145 are each fabricated out of distinct pieces. Primary handle 140 and secondary handle 145 may be attached such as by way of one of the above described sewing or stitching techniques. Additionally or alternatively, all or a portion of primary handle 140 and secondary handle 145 may be made of the same fabric piece. With seams suitably located to join them to other components of garment 100.

[0022] All or a portion of assistive garment 100 may be made out of more than one layer of fabric. Layered fabric may improve strength and/or durability as compared to unlayered fabric. In some cases only certain parts of a garment may be layered such as, for example, if the construction of garment 100 utilizes sewing techniques that may employ layering such as for, example, French seams, lapped seams, plackets, or the like. Additionally or alternatively, interfacing may be incorporated into the interior of garment 100 such as to, for example, stiffen various portions of assistive garment 100.

[0023] Optionally, trouser legs 110 may feature fasteners on one or both sides of each trouser leg. Fasteners may make the garment easier to don such as, for example, by permitting trouser legs 110 to be placed around a wearer's legs, without requiring that each of the wearer's legs be pushed through each trouser leg, by opening the fasteners, donning garment 100, and closing the fasteners. Suitable fasteners may include, for example, strong zippers as may resist forces applied during manipulation of the limbs by way of assistive garment 100.

[0024] Referencing FIGS. 3 and 4, each trouser leg 110a, 110b is worn around a respective lower limb of a wearer so as to encircle a portion of a corresponding lower limb of the wearer. As illustrated, each trouser leg 110a, 110b is dimensioned to encompass a respective thigh of the wearer and extends from a top position on a respective thigh of the wearer down to a bottom position on a bottom portion of that thigh, the bottom position terminating above the corresponding knee 214 of the wearer.

[0025] In other embodiments, trouser legs 110a, 110b may be part of a pair of trousers that extend up to the waistline of a wearer. Additionally or alternatively, trouser legs 110a,

110b may extend below the knees of a wearer such as, for example, down to the ankles. These alternate embodiments may, however, be significantly more difficult to don for someone without full function of their lower limbs. With each embodiment, the bridge 116 may be attached to the trouser legs so that, in use, the bridge is proximate to, but above, the knees of the wearer. An attachment point closer to the knee of a wearer of assistive garment 100 may offer improved manipulation of the legs as compared to a mounting point closer to the waist. For example, such a lower attachment point may increase the effective moment arm for manipulations of garment 100 using handle 130. Further, an attachment point above the knee reduces the likelihood of injuring a knee joint while manipulating the legs with garment 100.

[0026] With reference to FIG. 3, once the garment is donned, in use, the wearer may grasp primary handle 140 with a first hand 210 and the secondary handle 145 with a second hand 220. Force may be exerted on one or both of the handles, such as for example by way of pulling or twisting movements. Such forces are transferred to bridge 115 by way of the interconnection of handle 130 with bridge 116. As trouser legs 110a, 110b encompass at least a portion of each of lower limbs 200, such forces are, in turn, be transferred to one or both of lower limbs 200. In this way, one or both of lower limbs 200 may be repositioned.

[0027] FIG. 4 is a perspective view illustrating a manipulation of the lower limbs of a wearer as may be obtained by way of the assistive garment. As illustrated, lower limbs 200 of the wearer of assistive garment 100 have been moved towards the chest of the wearer as compared to the position of the wearer in FIG. 3.

[0028] It will be apparent that bridge 115 acts as a tether between the trouser legs such that the lower limbs of a wearer both move when the handle 130 is moved. Further, even when the handle 130 is not being used by the wearer, the bridge, in concert with trouser legs 110a, 110b, acts as a tether between the legs of a wearer which limits motion of one of the legs relative to the other. In this way, certain body positions may be avoided. For example, the bridge may limit the ability of the wearer's legs to achieve positions where they are splayed apart. Conveniently, in this way, uncomfortable body positions may be limited such as, for example, during sleep.

[0029] Primary handle 140 is dimensioned so that, as illustrated, the apex of the primary handle 140 overlies the chest of a wearer when extended towards the head.

[0030] A garment equipped with secondary handle 145 may facilitate use of the garment. For example, a user could grasp the primary handle 140 with one hand and the secondary handle 145 with the other to increase the force that may be applied to the legs. Also, with the wearer's legs bent, it may be more difficult to manoeuvre the legs with the primary handle 140 as this would require the wearer to raise an arm farther than may be comfortable. Thus, in such circumstances, the wearer may prefer to use the secondary handle 145. Further, by manipulation of one of the handles 140, 145 in concert or in opposition to the other of the handles, such as by way of, for example, using a first hand 210 and a second hand 220 as illustrated, one or both of translational and rotational forces may be applied to one or both of lower limbs 200 using assistive garment 100.

[0031] With the garment, while on a bed, not only may a wearer reposition his lower limbs on the bed but also, while